

## REMARKS

Applicants have received and reviewed an Office Action dated June 5, 2002. By way of response, Applicants have amended claims 1,3, 6, and 8 and presented new claims 31-34. No new matter is presented. Claims 1-9 and 31-34 are pending. Applicants submit that the pending claims are supported by the specification.

Support for the recitation in claims 31-33 of an aqueous flume can be found in the specification at least at page 13, line 23, through page 14, line 5.

For the reasons given below, Applicants submit the amended and newly presented claims are in condition for allowance and notification to that effect is earnestly solicited.

### Rejection of Claims Under § 103(a)

The Examiner rejected claims 1-9 under 35 U.S.C. § 103(a) as obvious over PCT Patent Application No. WO 93/01716 and European Patent Application No. EP 985349. Applicants respectfully traverse this rejection.

Before directly addressing the rejection, Applicants would like to address the restricted ranges of ingredients recited in the present independent claims. Applicants note that the ranges in these claims are restrictively tailored around the amounts found effective for killing three pathogenic bacteria on the surface of a fruit or vegetable. For example, in the concentrate compositions, the amounts of the carboxylic acids are limited to within  $\pm 5$  wt-% of a desired value. The amounts of the other ingredients of the composition are limited to within  $\pm 1, 2, 3$ , or  $4$  wt-% of a desired value. The claims to the use compositions also recite restricted ranges of ingredients.

Applicants carefully tailored the ranges of ingredients in their claims to select those with the unexpected effect of killing three pathogenic bacteria.

The claims are also limited to only those compositions falling within those ranges that actually kill one or more of those three pathogenic bacteria on the surface of a fruit or vegetable. Experimental data demonstrating this unexpected killing of these three pathogenic bacteria on the surface of a fruit or vegetable can be found in the specification at least at Example 4, pages 24-26.

Applicants carefully recited in their claims selected compositions with the unexpected effect of killing three pathogenic bacteria on the surface of a fruit or vegetable, which is supported by experimental data in the present specification.

The references cited in the rejection do not disclose or suggest the claimed ranges of ingredients. Further, the references cited in the rejection do not disclose or suggest the unexpected result of killing *Escherichia coli* O157:H7, *Listeria monocytogenes*, *Salmonella javiana*, or a mixture thereof on the surface of a fruit or vegetable. The references cited in the rejection do not disclose or suggest the compositions or the claimed unexpected effect. Therefore, the cited references neither teach nor suggest the presently claimed invention.

Accordingly, based on the foregoing differences, it is submitted that the references cited in the prior art rejection neither teach nor suggest the presently claimed compositions, and withdrawal of this rejection is respectfully requested.

#### **The Newly Presented Claims**

The newly presented claims also relate to subject matter that is neither taught nor suggested by the references cited in the rejection. Of course, this rejection has not been raised against these newly presented claims. To advance prosecution of the application, Applicants will address this rejection insofar as it might apply.

Newly presented claims 31-33 are restricted to an aqueous flume for washing or transporting produce. Neither of the references cited in the prior art rejection discloses or suggests flumes or produce. Therefore, the references cited in the prior art rejection, either alone or in combination, neither teach nor suggest the subject matter of claims 31-33.

Newly presented claim 34 recites a ratio of ingredients in the original claims to use compositions. For the reasons described above for the original claims, this claim is also free of the prior art.

Claims 31-34 are allowable, and notification to that effect is earnestly solicited.

**Summary**

In summary, Applicants submit that each of claims 1-9 and 31-34 are in condition for allowance. The Examiner is invited to contact Applicant's undersigned representative at the telephone number listed below, if the Examiner believes that doing so will expedite prosecution of this application.

Respectfully submitted,

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## MARKED-UP VERSION TO SHOW CHANGES MADE

1. (Amended) An antimicrobial concentrate composition comprising:  
a combination of peroxyacetic acid and peroxyoctanoic acid effective for killing  
[*Escherichia coli* O157:H7, *Listeria monocytogenes*, *Salmonella javiana*, yeast, and  
mold] on the surface of a fruit or vegetable pathogenic microorganism comprising  
*Escherichia coli* O157:H7, *Listeria monocytogenes*, *Salmonella javiana*, or mixture  
thereof;

the combination comprising about 35 to about 45 weight-% acetic acid, about 5 to  
about 15 weight-% octanoic acid, about 3 to about 8 weight-% hydrogen peroxide, about  
8 to about 16 weight-% peroxyacetic acid, about 1 to about 5 weight-% peroxyoctanoic  
acid, and about 0.1 to about 2 weight-% chelating agent.

3. (Amended) An antimicrobial use composition comprising:  
a combination of peroxyacetic acid and peroxyoctanoic acid effective for killing  
[*Escherichia coli* O157:H7, *Listeria monocytogenes*, *Salmonella javiana*, yeast, and  
mold] on the surface of a fruit or vegetable pathogenic microorganism comprising  
*Escherichia coli* O157:H7, *Listeria monocytogenes*, *Salmonella javiana*, or mixture  
thereof;

the combination comprising about 10 to about 150 ppm acetic acid, about 5 to  
about 40 ppm octanoic acid, about 4 to about 20 ppm hydrogen peroxide, about 5 to  
about 50 ppm peroxyacetic acid, about 2 to about 25 ppm peroxyoctanoic acid, and about  
0.2 to about 2.5 ppm chelating agent.

6. (Amended) An antimicrobial concentrate composition comprising:  
a combination of peroxyacetic acid and peroxyoctanoic acid effective for killing  
[*Escherichia coli* O157:H7, *Listeria monocytogenes*, *Salmonella javiana*, yeast, and  
mold] on the surface of a fruit or vegetable pathogenic microorganism comprising  
*Escherichia coli* O157:H7, *Listeria monocytogenes*, *Salmonella javiana*, or mixture  
thereof;

the combination comprising an equilibrium mixture resulting from a composition of about 50 to about 60 weight-% acetic acid, about 10 to about 20 weight-% octanoic acid, about 5 to about 15 weight-% hydrogen peroxide, and about 0.3 to about 1 weight-% chelating agent.

8. (Amended) An antimicrobial concentrate composition comprising:  
a combination of peroxyacetic acid and peroxyoctanoic acid effective for killing [*Escherichia coli* O157:H7, *Listeria monocytogenes*, *Salmonella javiana*, yeast, and mold] on the surface of a fruit or vegetable pathogenic microorganism comprising *Escherichia coli* O157:H7, *Listeria monocytogenes*, *Salmonella javiana*, or mixture thereof;

the combination comprising about 50 to about 60 weight-% acetic acid, about 10 to about 20 weight-% octanoic acid, about 5 to about 15 weight-% hydrogen peroxide, and about 0.3 to about 1 weight-% chelating agent.